This Page Is Inserted by IFW Operations
and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

As rescanning documents *will not* correct images, please do not report the images to the Image Problem Mailbox.

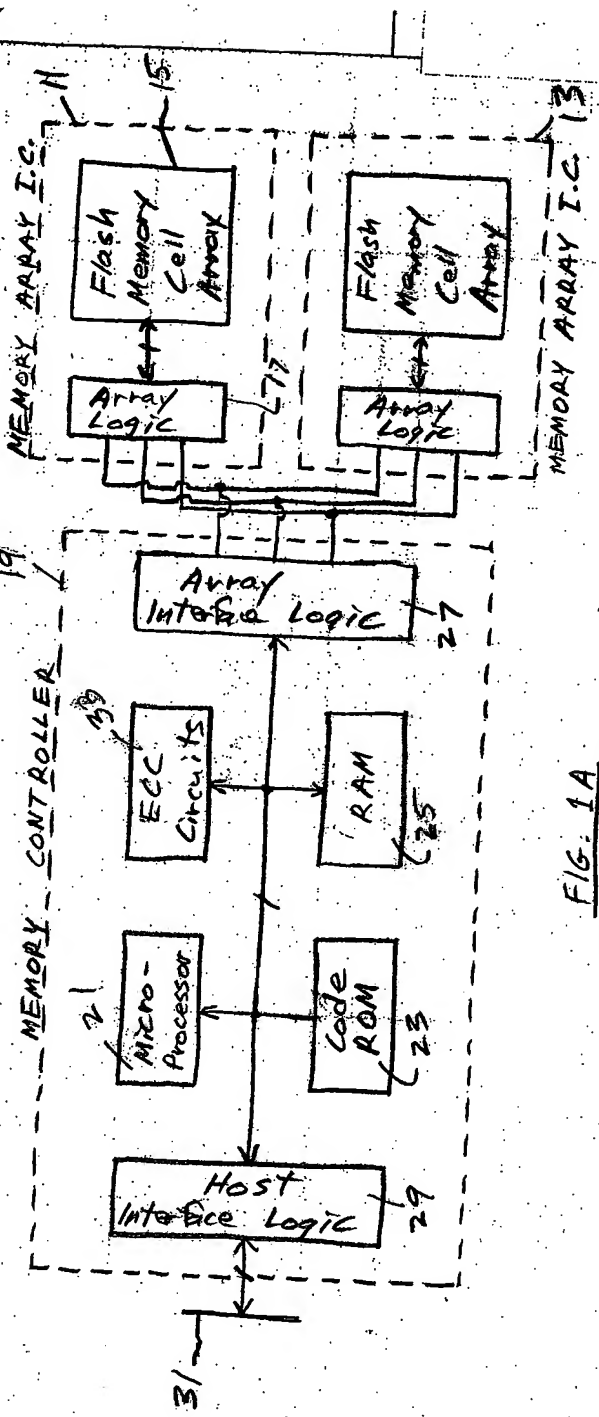

FIG. 1A
Non-Volatile Memory

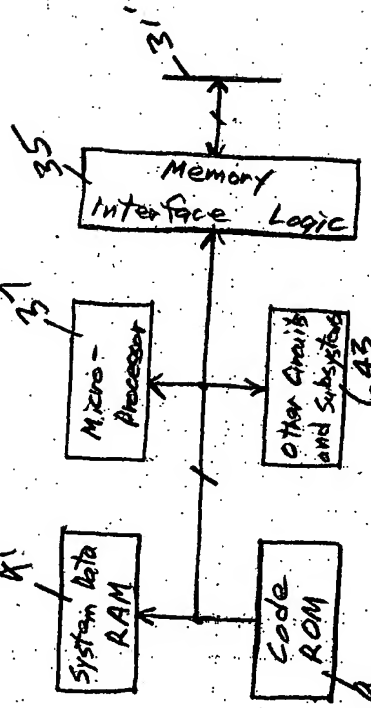

FIG. 1B
Host

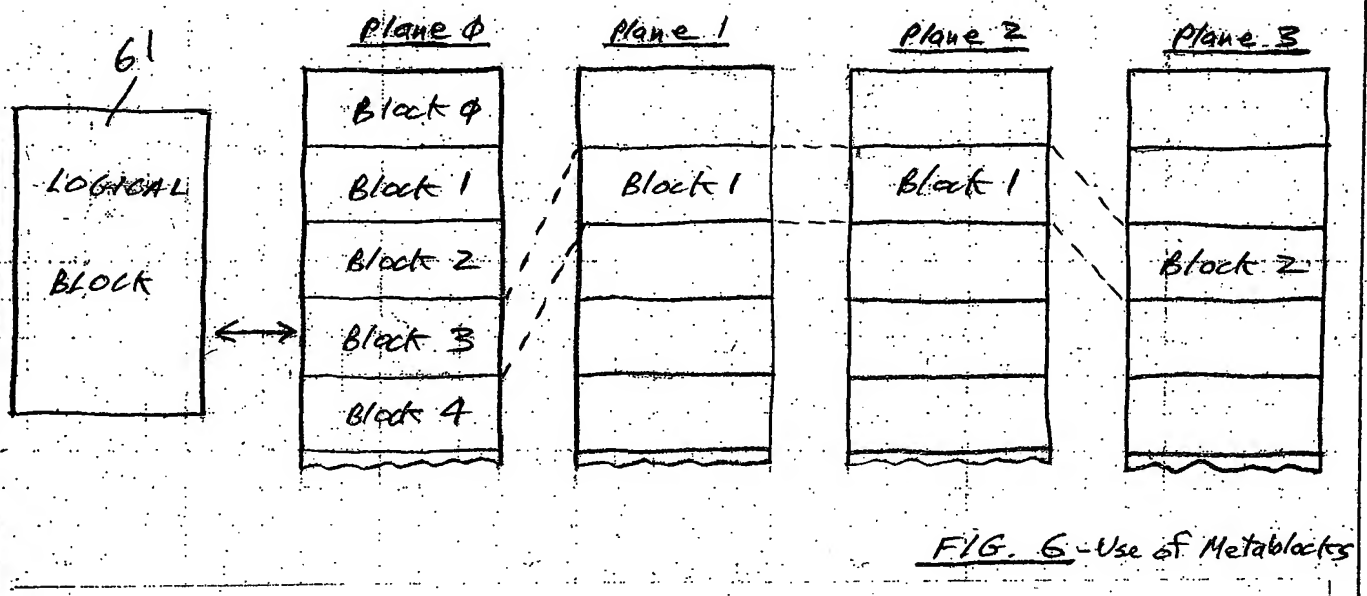

FIG. 6 - Use of Metablocks

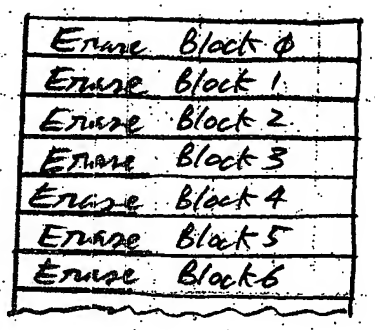

FIG. 2.

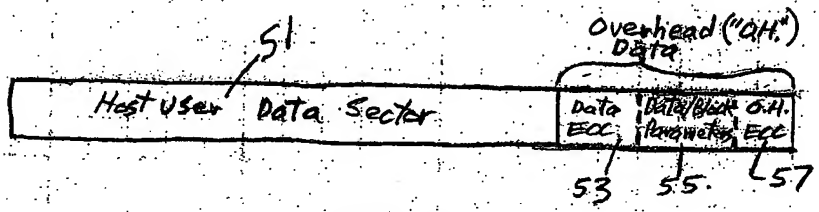

FIG. 3

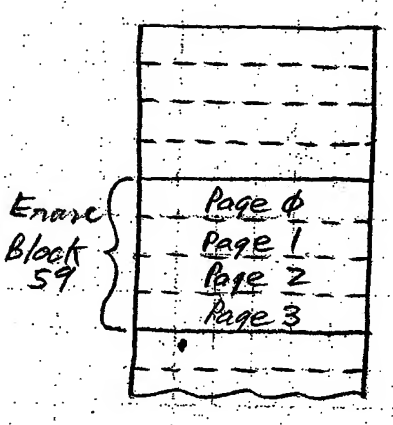

FIG. 4

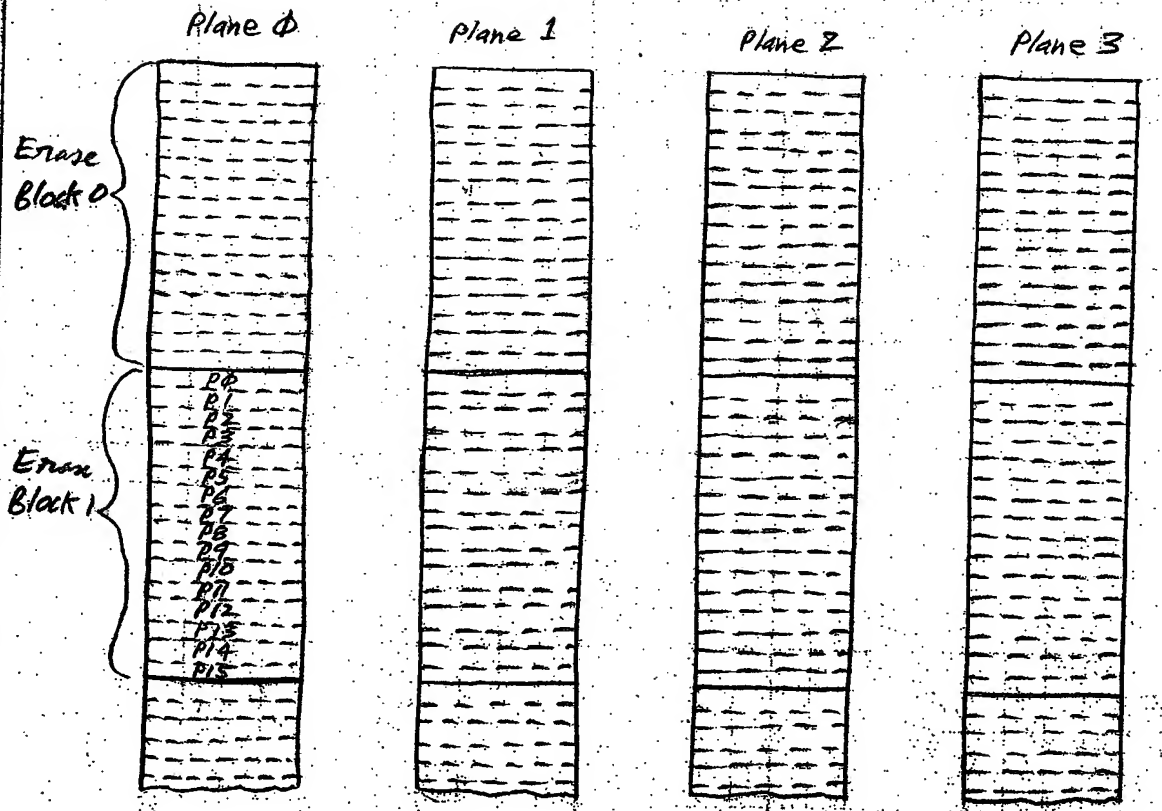

FIG. 5

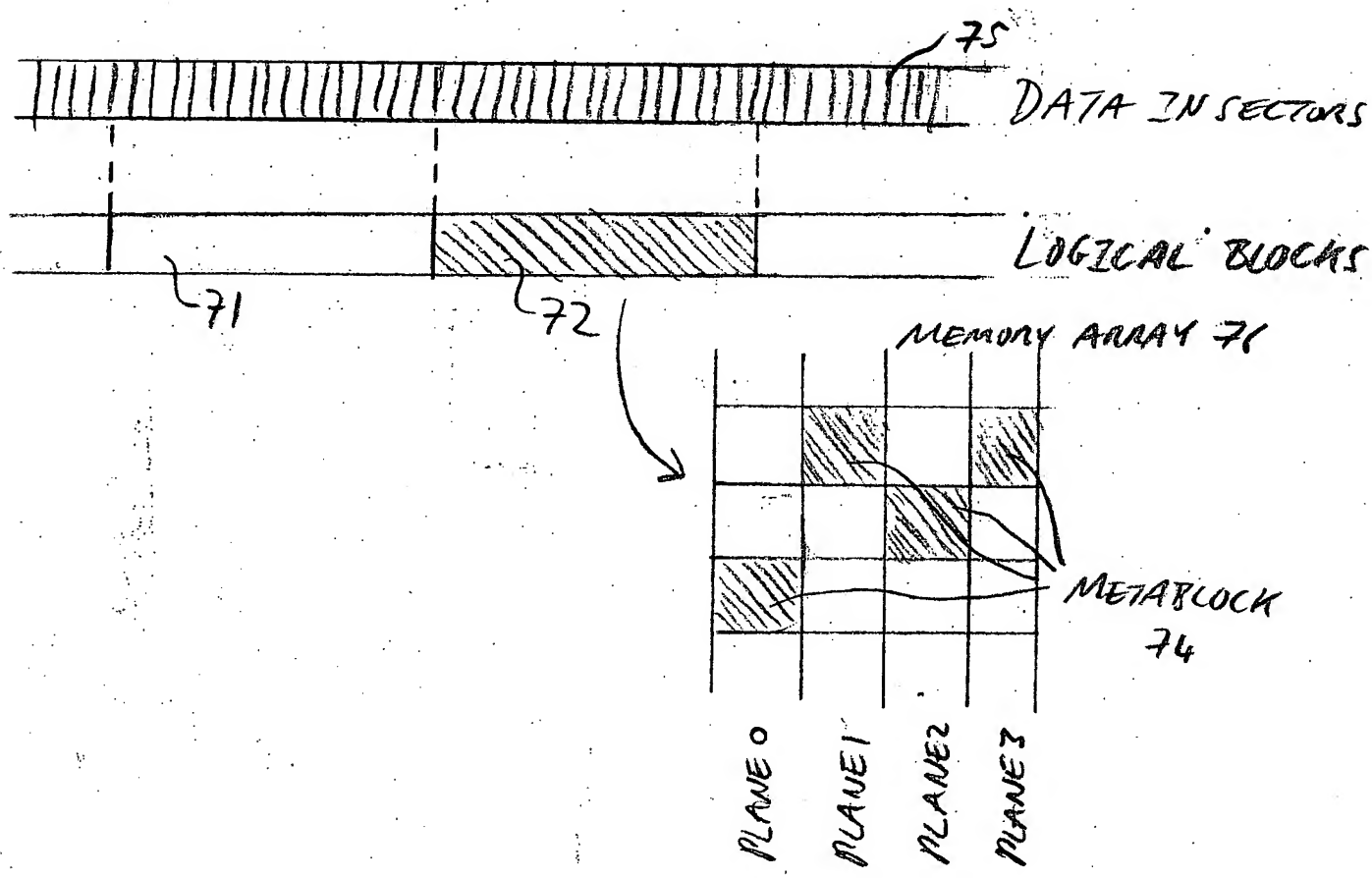
75
DATA IN SECTORS
LOGICAL BLOCKS
71
72
MEMORY ARRAY 76
METABLOCK
74
PLANE 0
PLANE 1
PLANE 2
PLANE 3

FIGURE 7

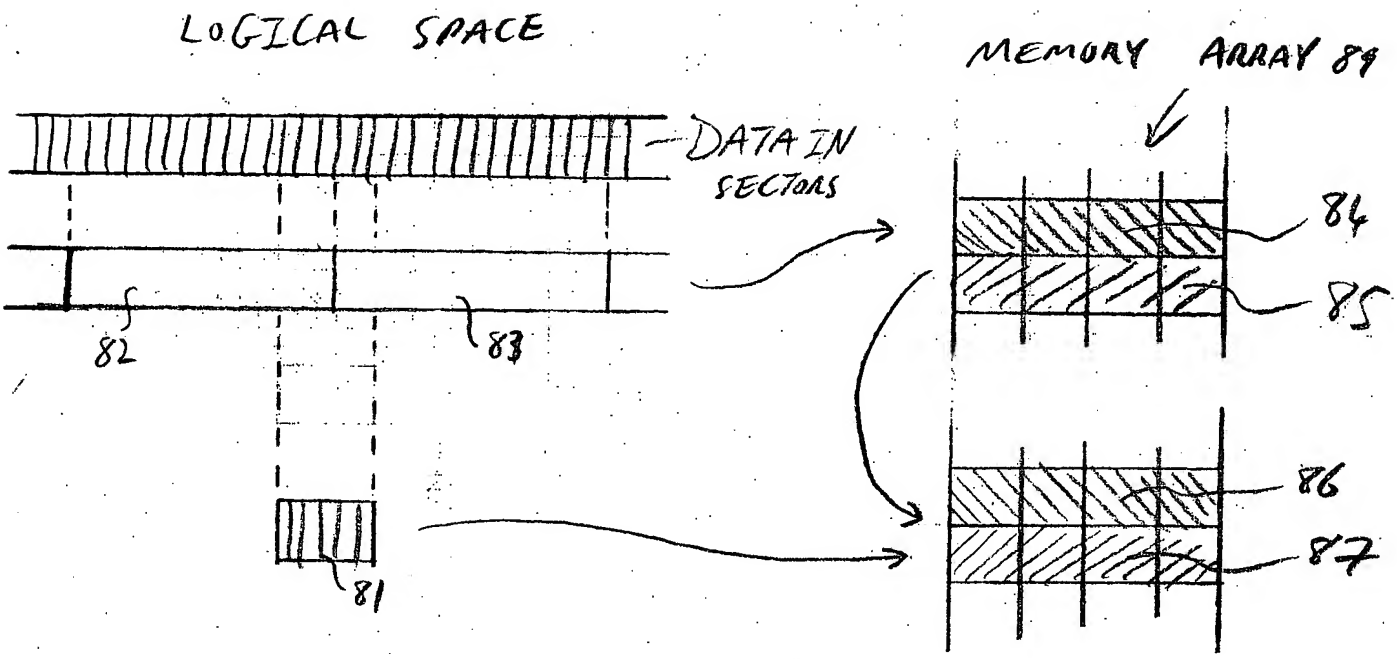
LOGICAL SPACE
MEMORY ARRAY 89
DATA IN SECTORS
82
83
81
84
85
86
87

FIGURE 8

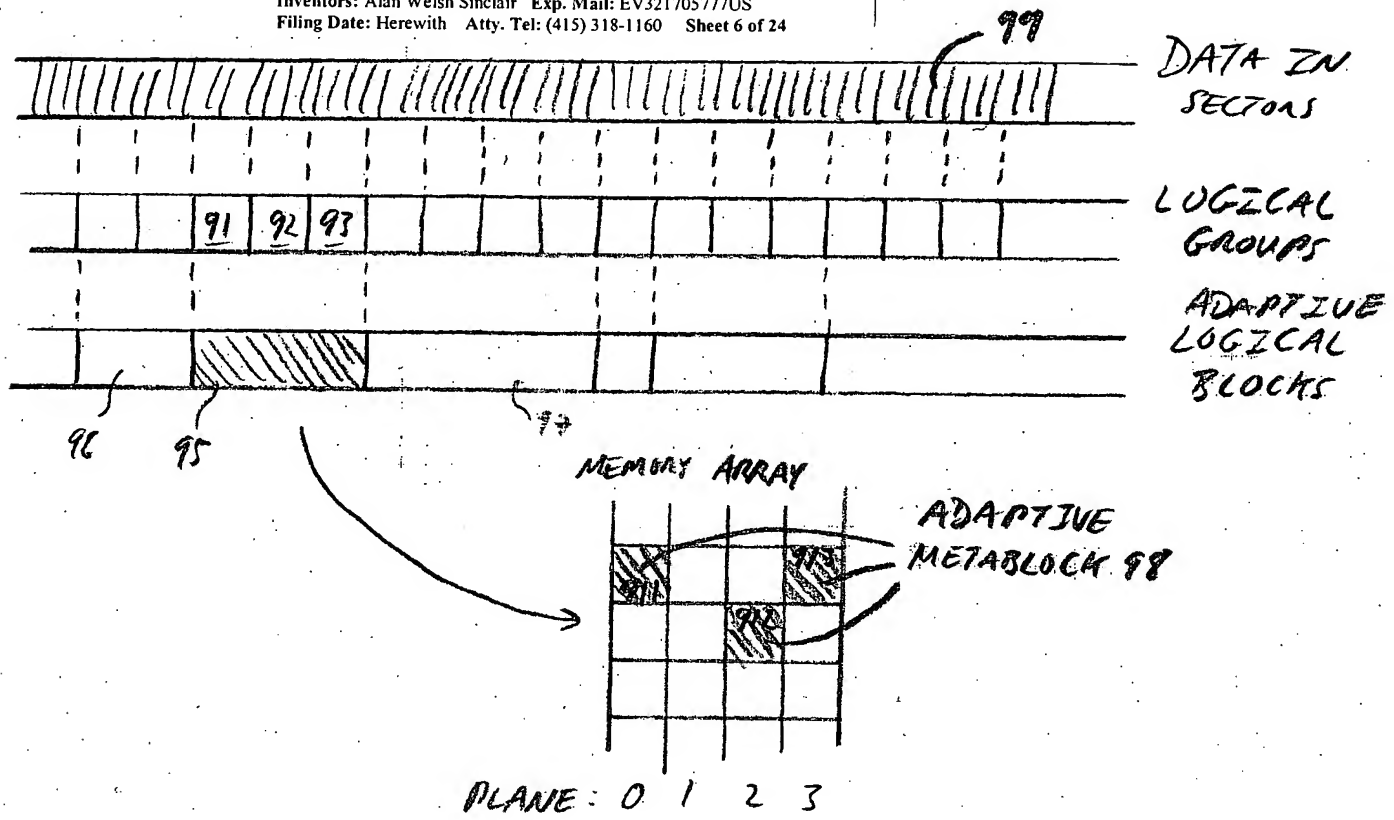

FIGURE 9A

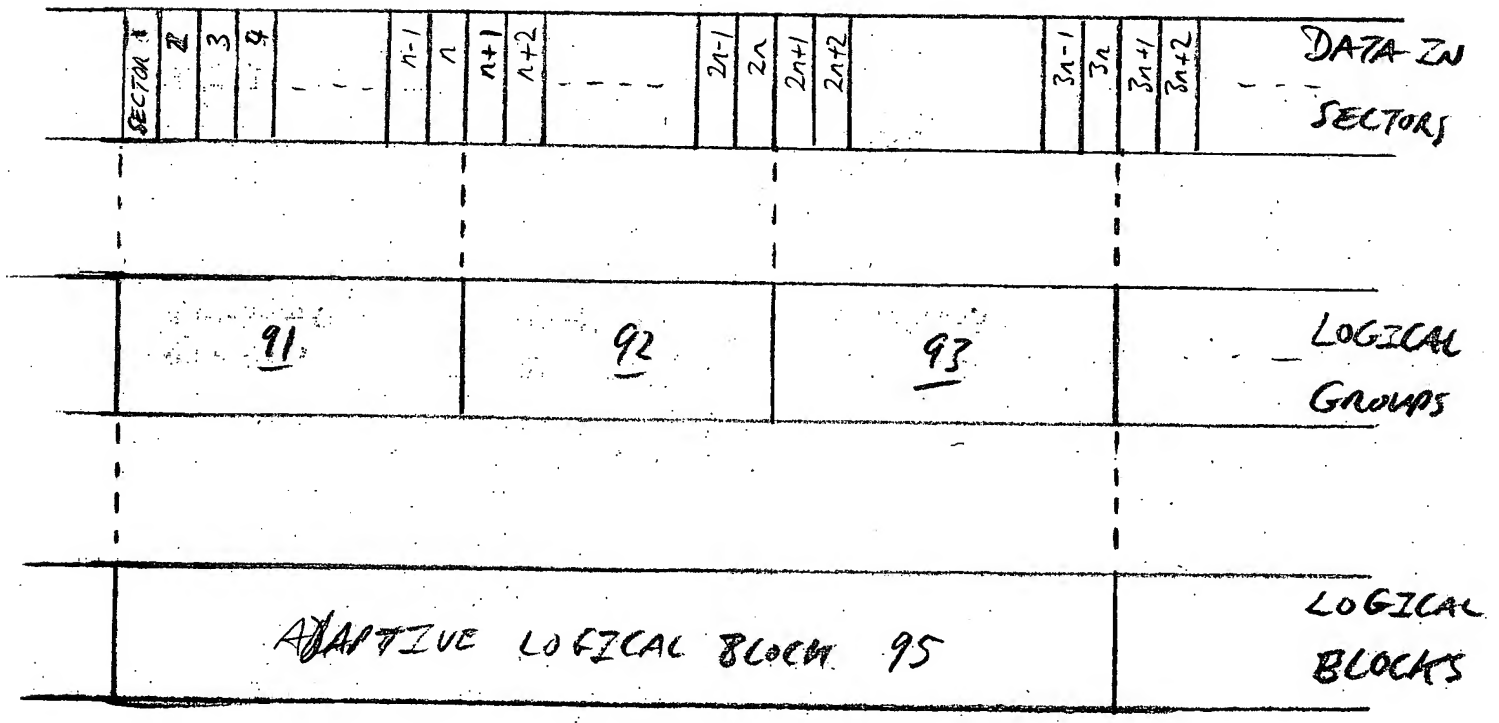

FIGURE 9B

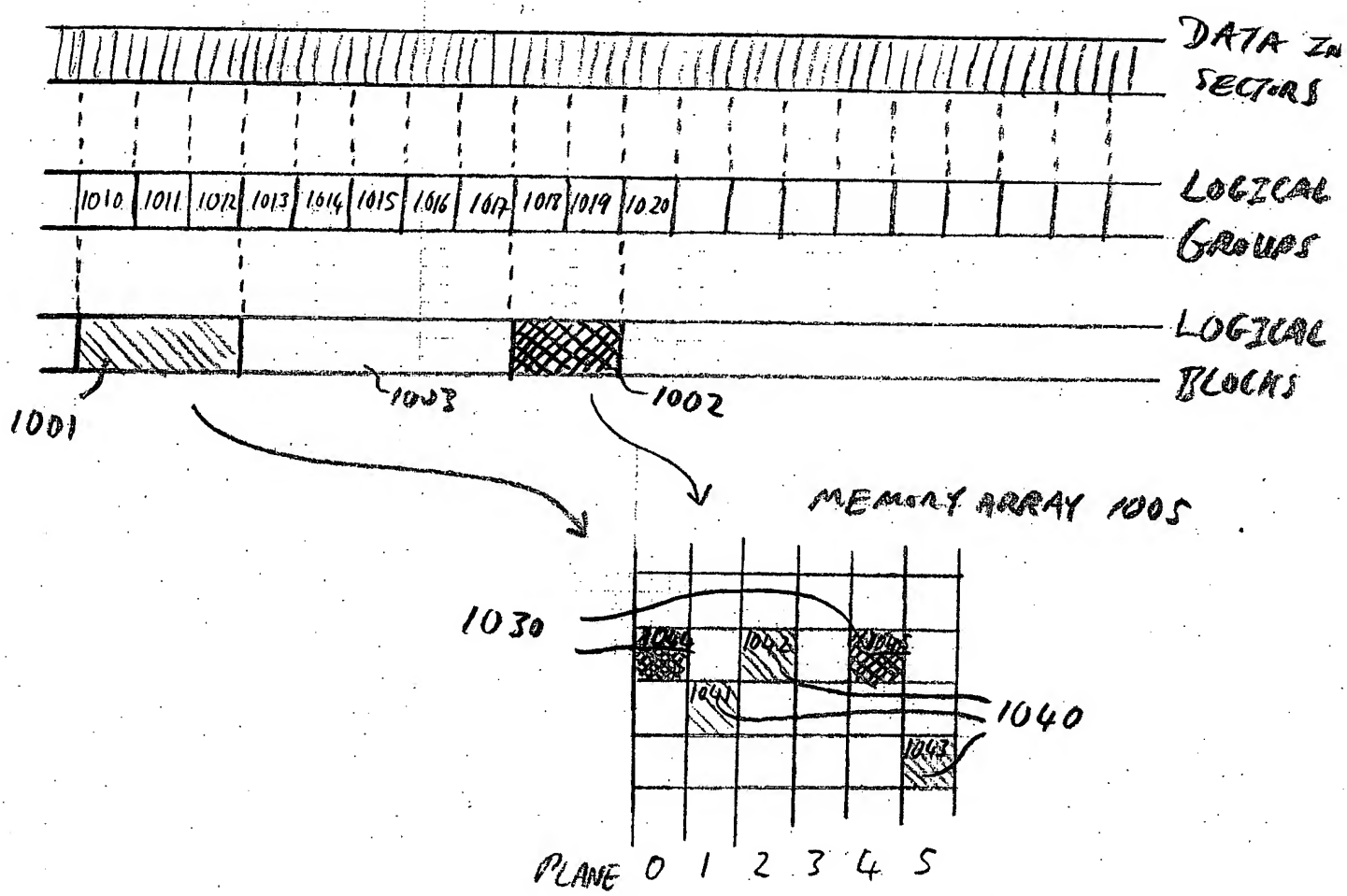
DATA IN SECTORS
1010
1011
1012
1013
1014
1015
1016
1017
1018
1019
1020
LOGICAL GROUPS
LOGICAL BLOCKS
1001
1003
1002
MEMORY ARRAY 1005
1030
1042
1041
1040
1043
PLANE 0 1 2 3 4 5

FIGURE 10

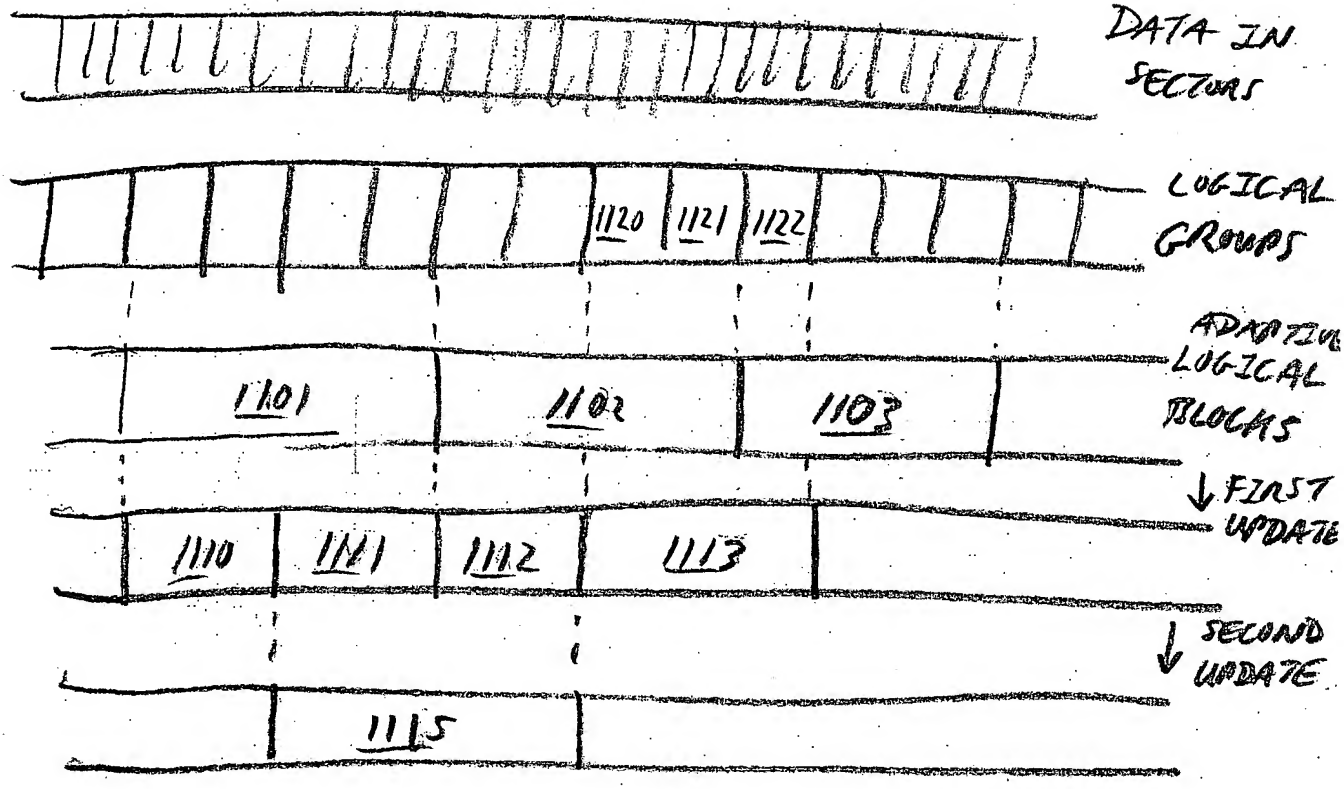
DATA IN SECTORS
LOGICAL GROUPS
1120
1121
1122
ADAPTIVE LOGICAL BLOCKS
1101
1102
1103
FIRST UPDATE
1110
1111
1112
1113
SECOND UPDATE
1115

Fig 11

22-141 50 SHEETS
22-142 100 SHEETS
22-144 200 SHEETS
AMPAD

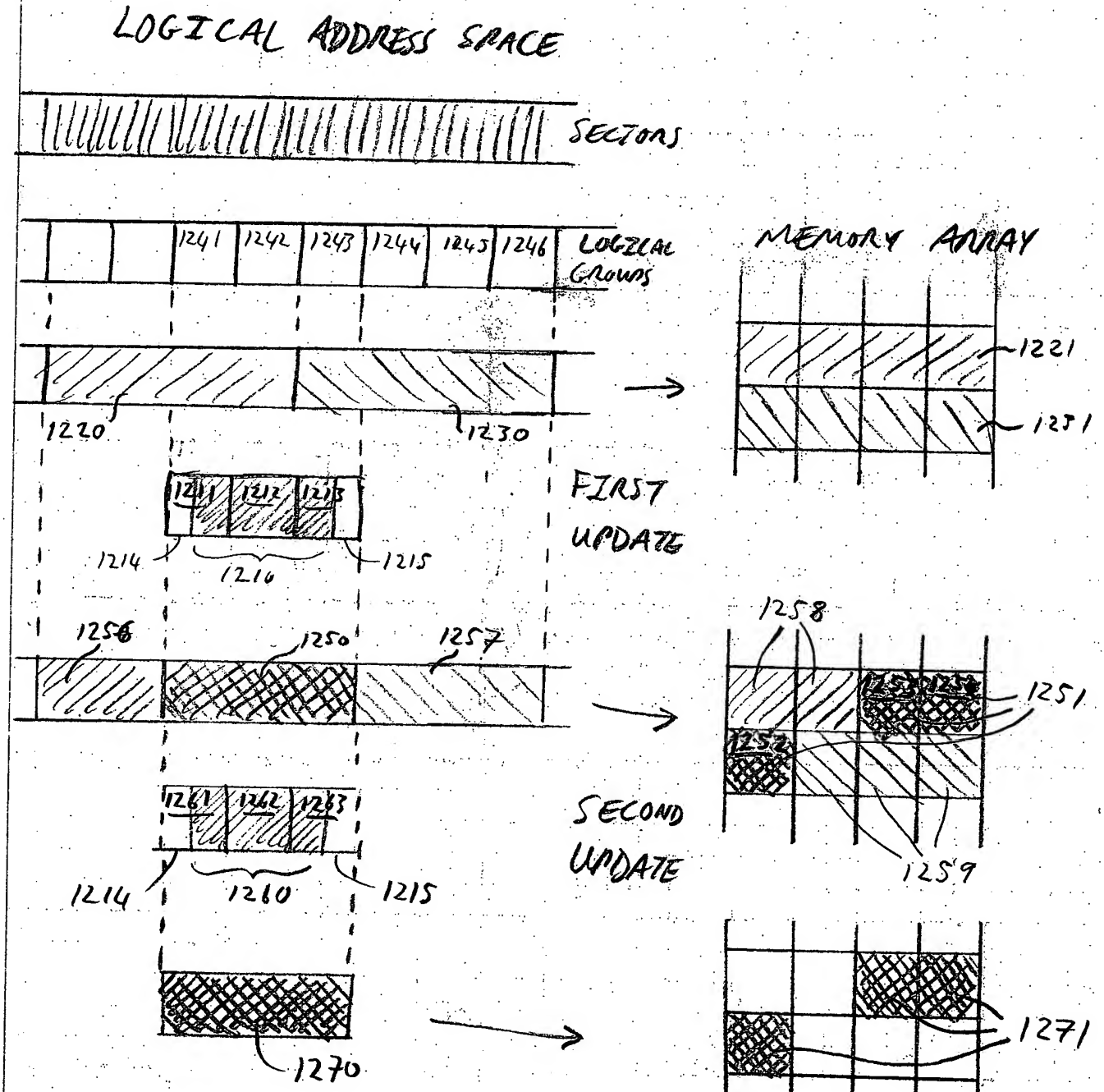

FIGURE 12A

22-141 50 SHEETS
22-142 100 SHEETS
22-144 200 SHEETS
AMPAD

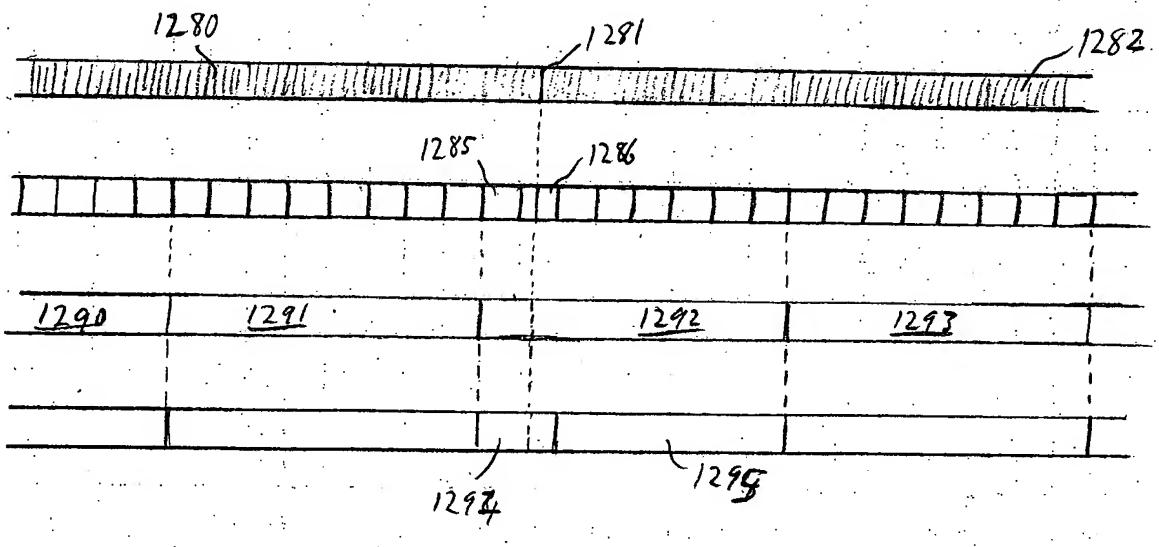

FIGURE 12B

22-141 50 SHEETS
22-142 100 SHEETS
22-144 200 SHEETS
AMPAD

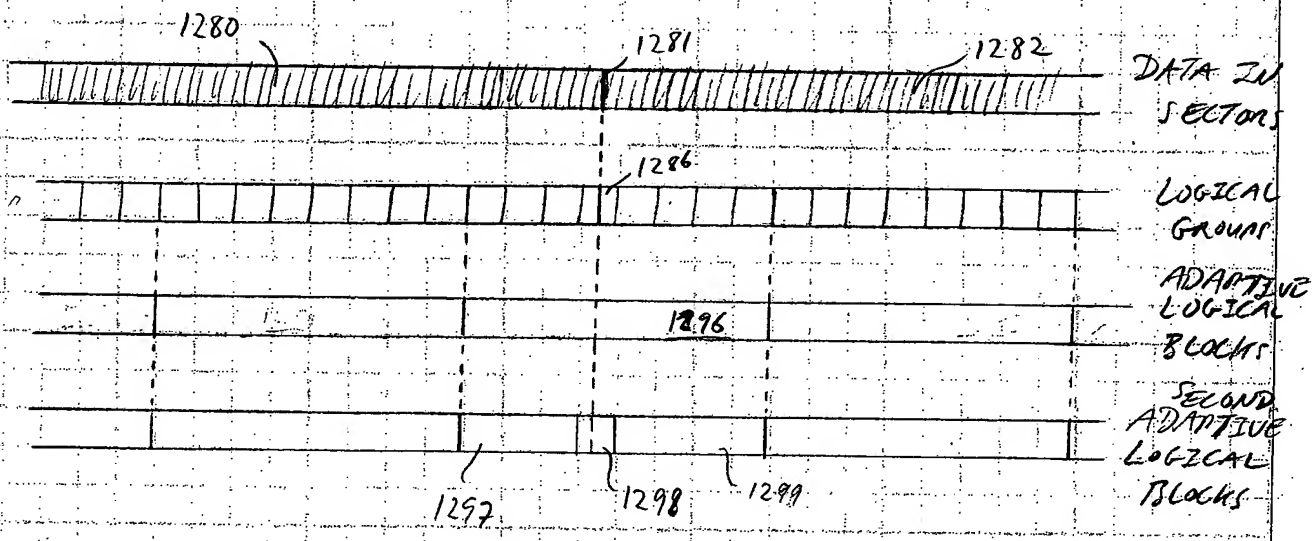

FIGURE 12C

22-141 50 SHEETS
22-142 100 SHEETS
22-144 200 SHEETS
AMPAD

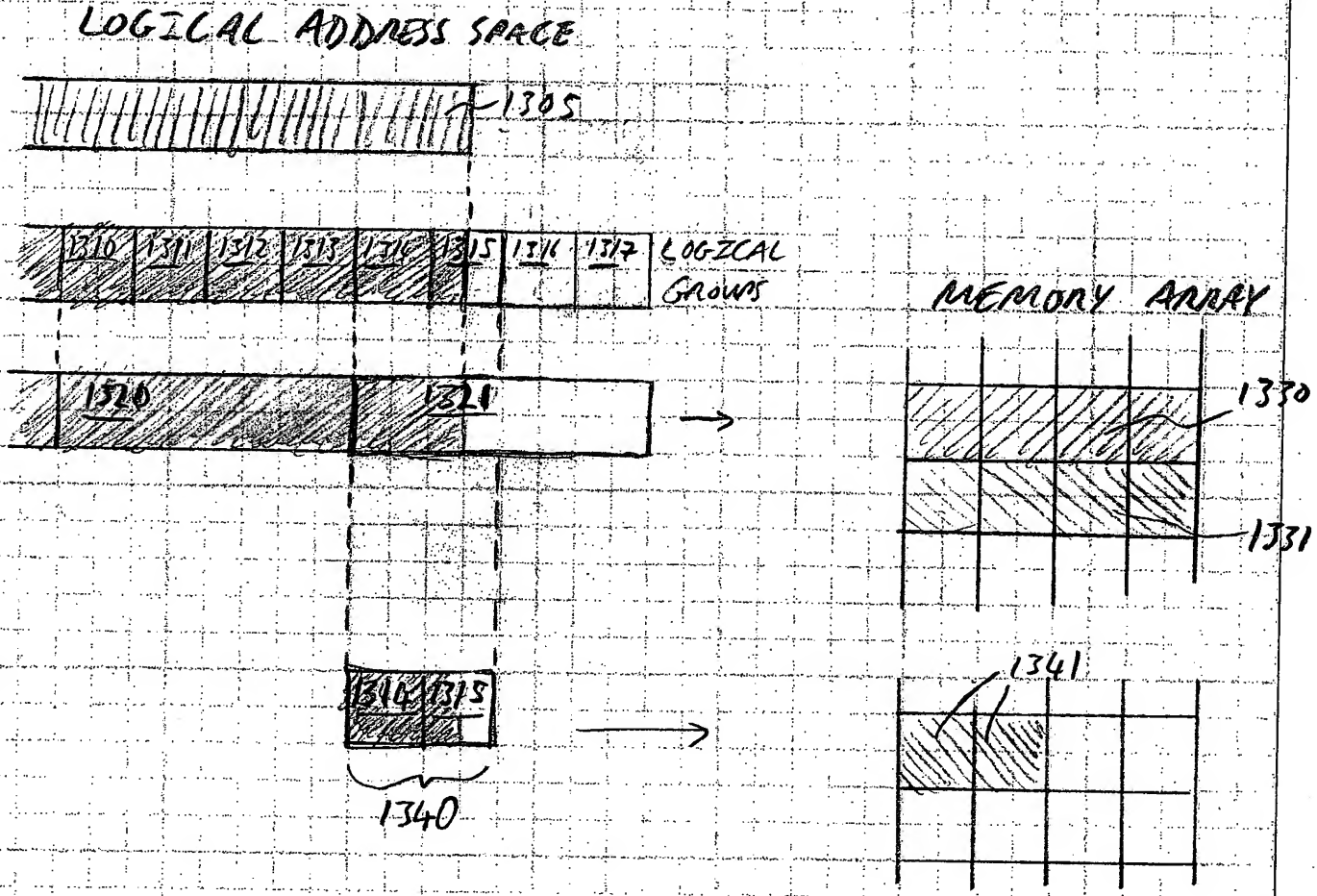

FIGURE 13

CAMPAD 22-141 50 SHEETS 22-142 100 SHEETS 22-144 200 SHEETS

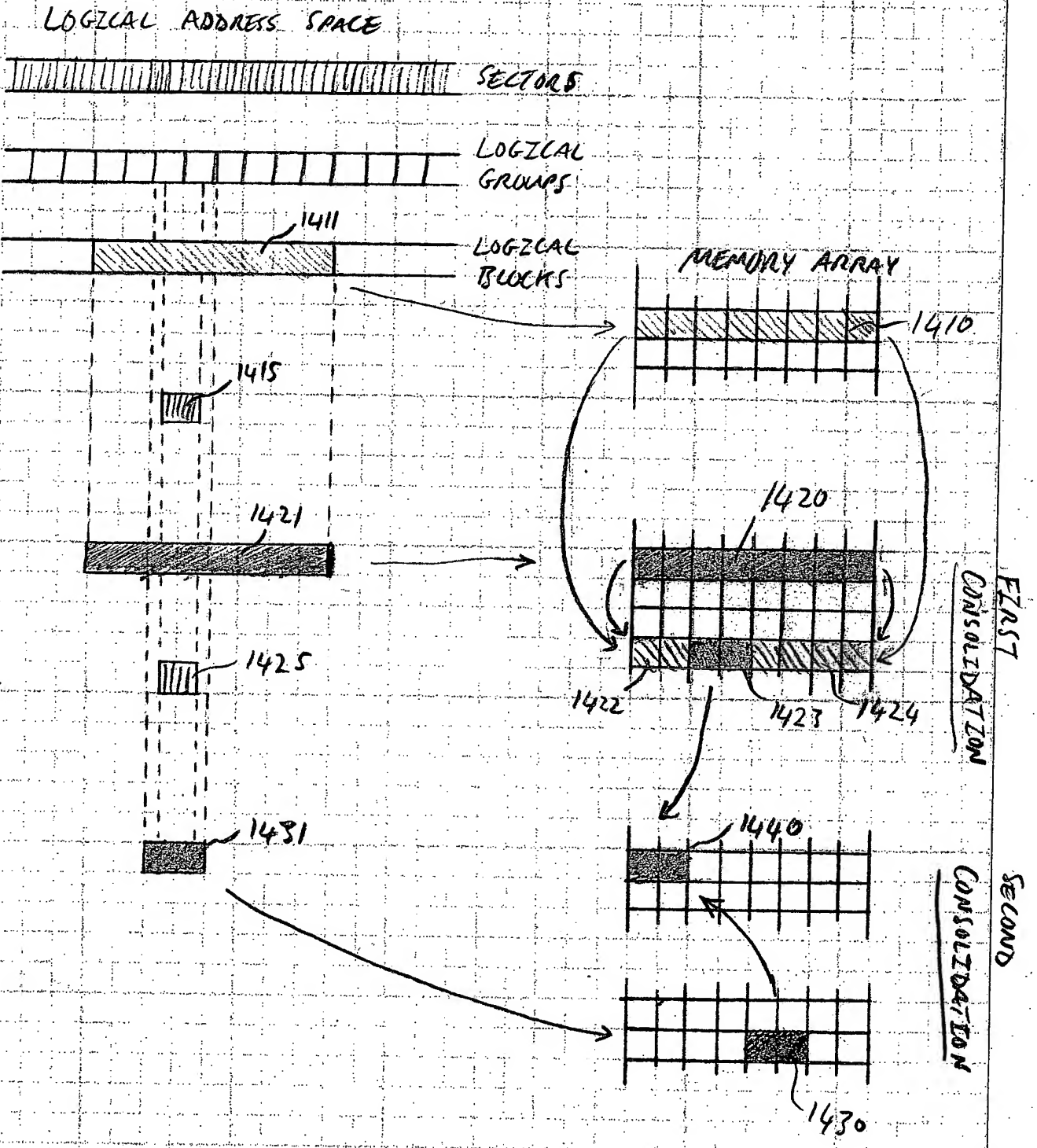

FIGURE 14

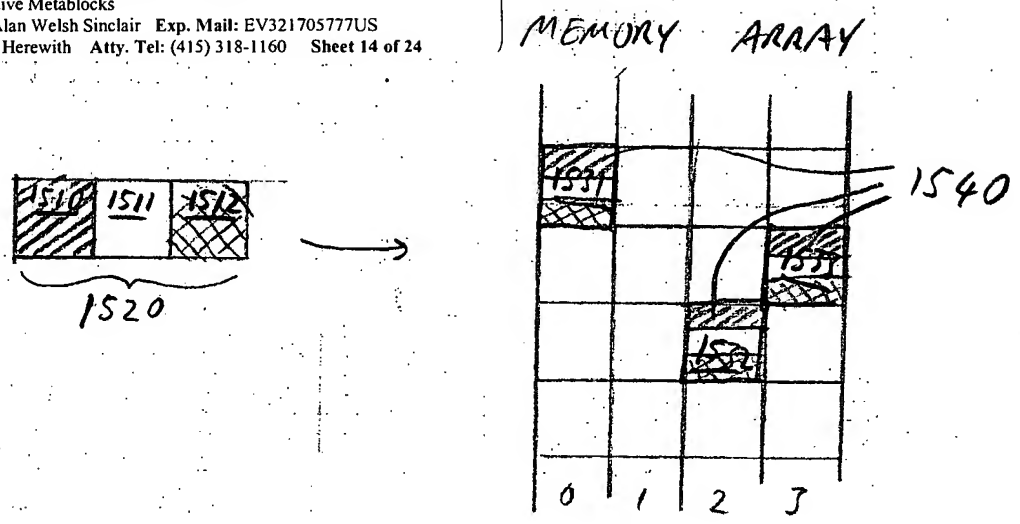

FIGURE 15A

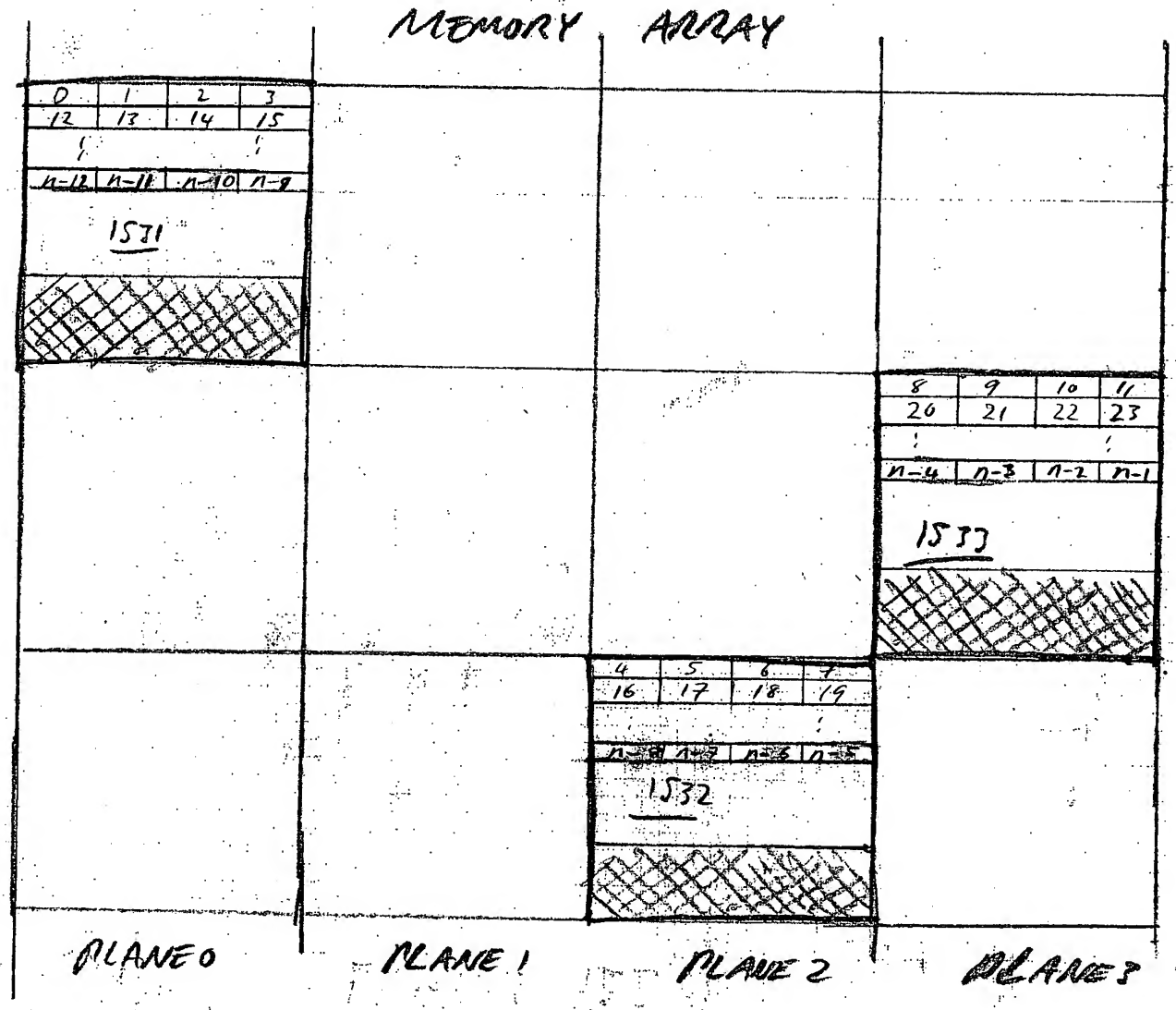

FIGURE 15B

22-141 50 SHEETS
22-142 100 SHEETS
22-144 200 SHEETS
CAMPAD

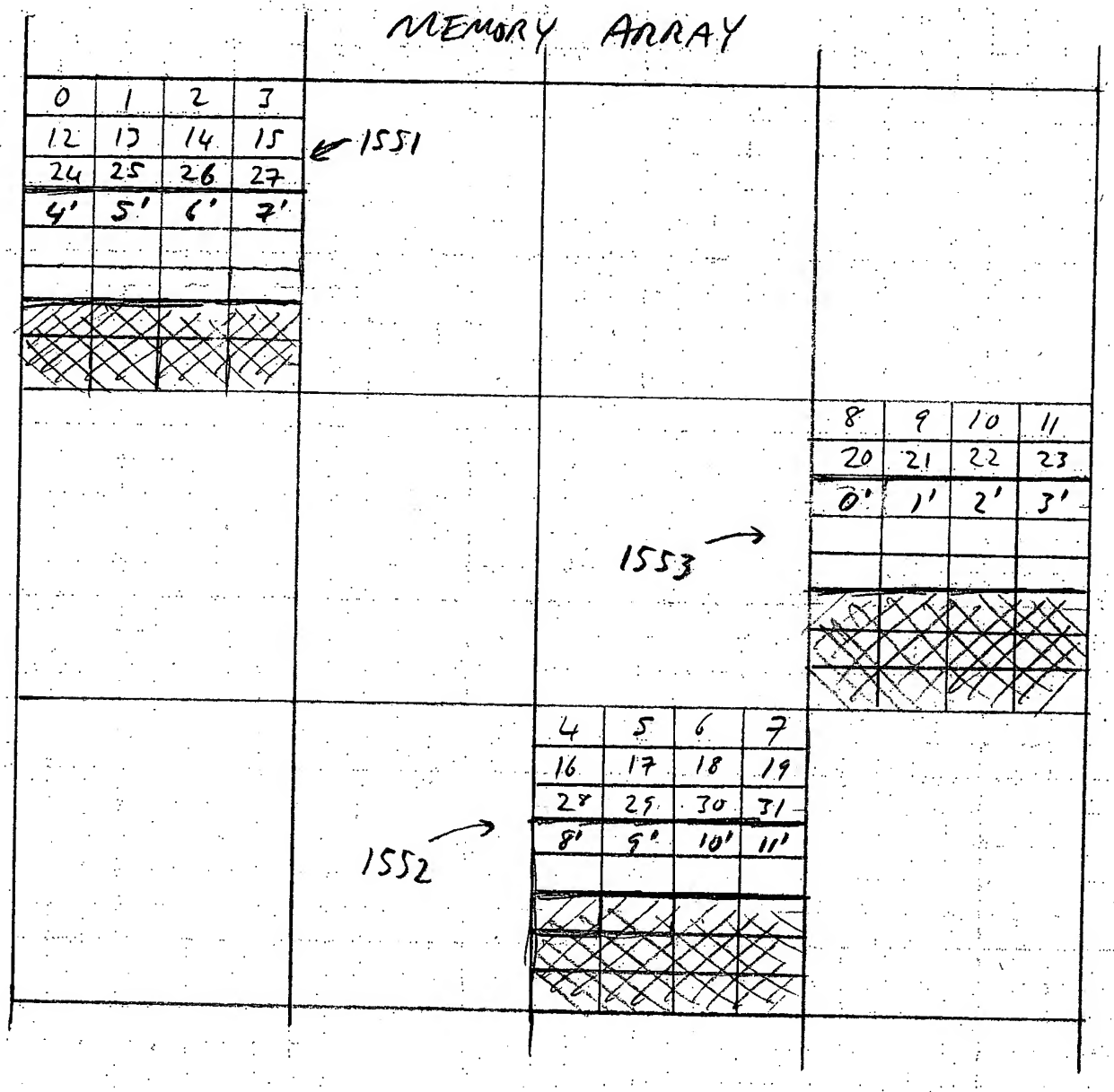

FIGURE 15C

22-141 50 SHEETS
22-142 100 SHEETS
22-144 200 SHEETS
AMPAD

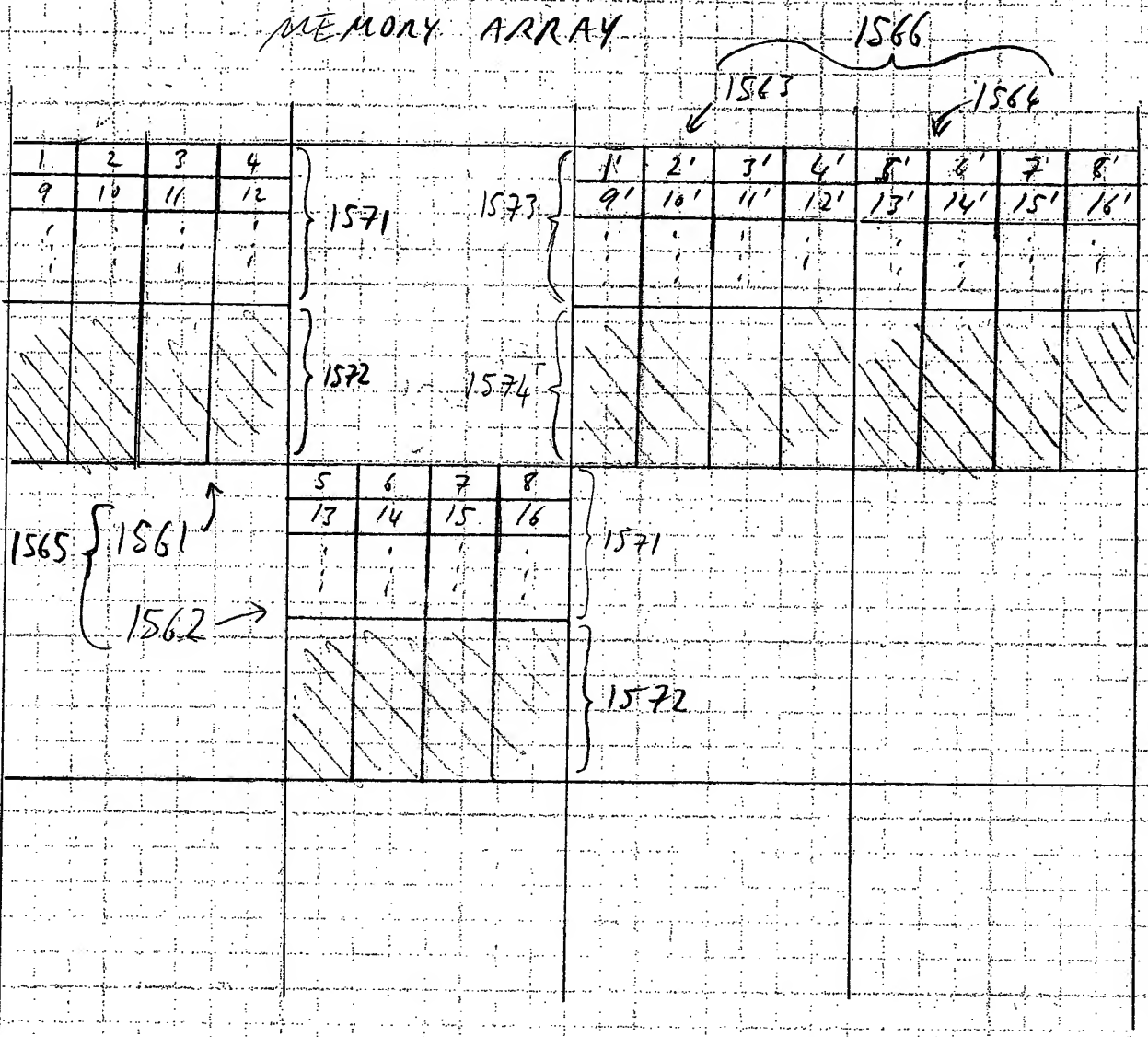

FIGURE 15D

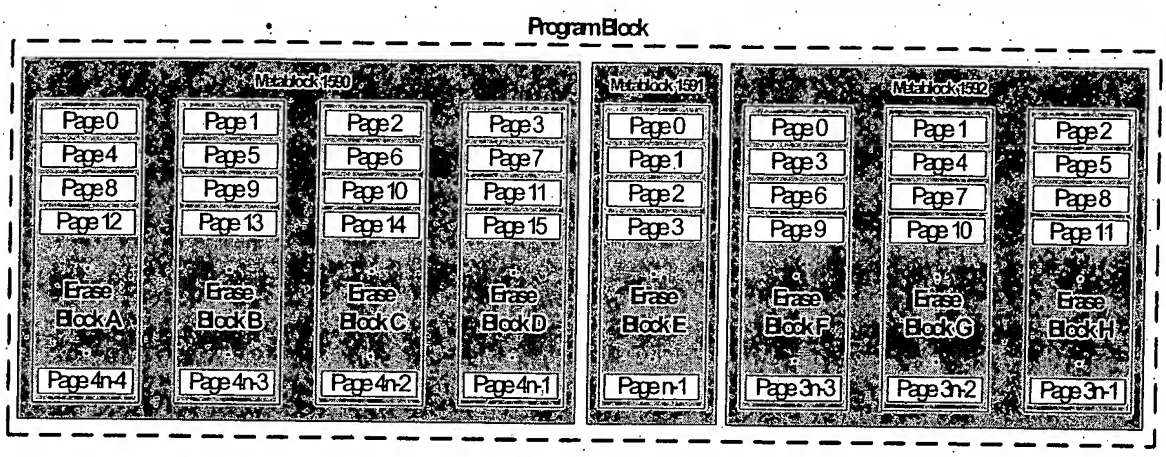
ProgramBlock
Metablock 1590
Page 0
Page 4
Page 8
Page 12
Erase Block A
Page 4n-4
Page 1
Page 5
Page 9
Page 13
Erase Block B
Page 4n-3
Page 2
Page 6
Page 10
Page 14
Erase Block C
Page 4n-2
Page 3
Page 7
Page 11
Page 15
Erase Block D
Page 4n-1
Metablock 1591
Page 0
Page 1
Page 2
Page 3
Erase Block E
Page n-1
Metablock 1592
Page 0
Page 3
Page 6
Page 9
Erase Block F
Page 3n-3
Page 1
Page 4
Page 7
Page 10
Erase Block G
Page 3n-2
Page 2
Page 5
Page 8
Page 11
Erase Block H
Page 3n-1

FIGURE 15E

22-141 50 SHEETS
22-142 100 SHEETS
22-144 200 SHEETS
AMPAD

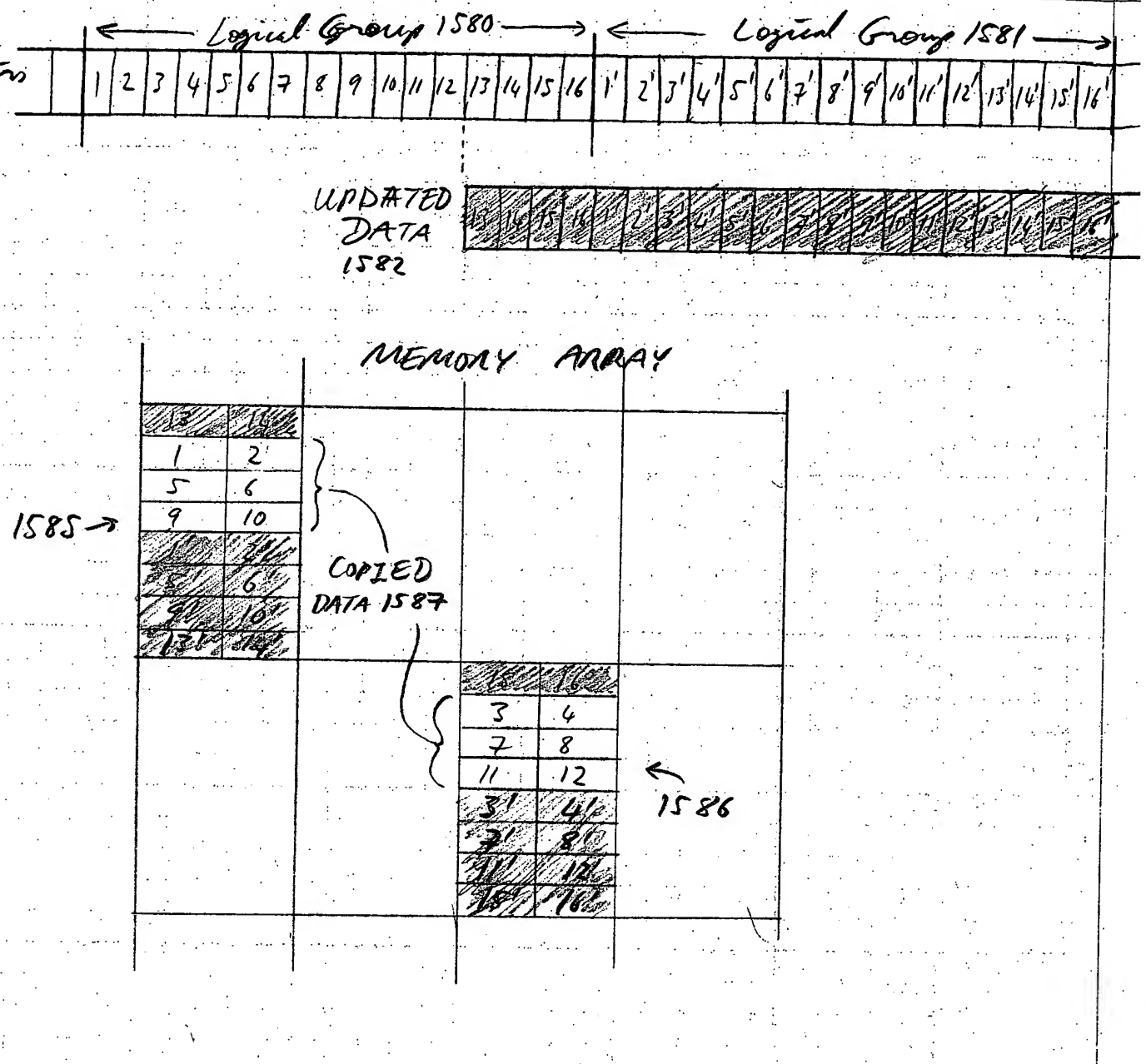

FIGURE 15F

LOGICAL GROUP	SIZE	LOGICAL GROUP No.	BLOCK
L1	3	1	A
L2	3	2	B
L3	3	3	C

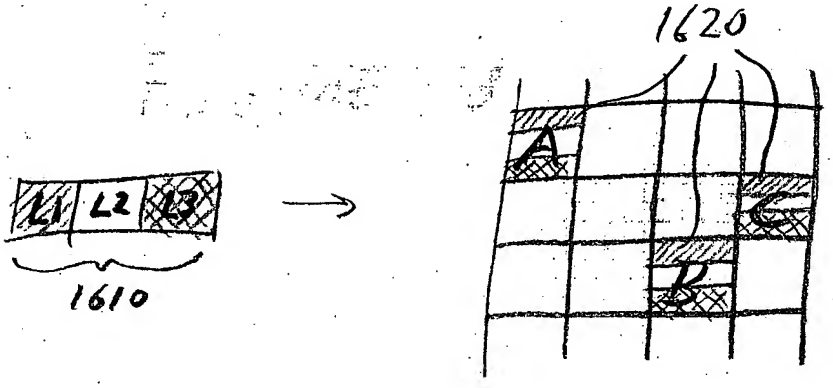

FIGURE 16

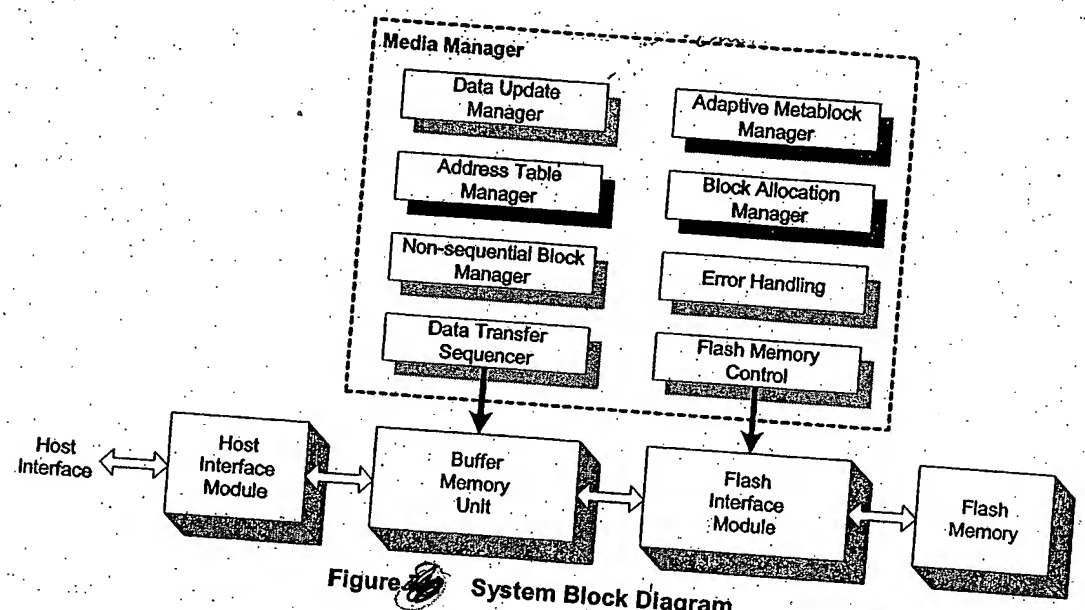

Figure 17 System Block Diagram

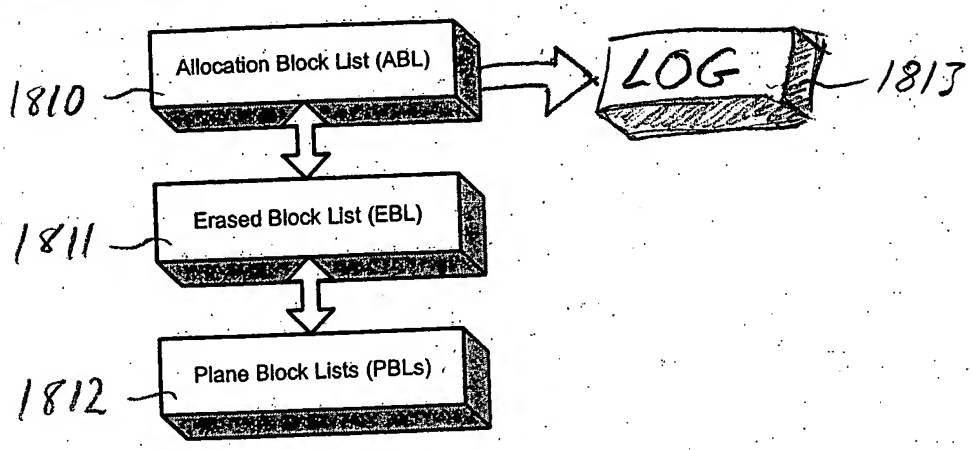

FIGURE 18A ERASED BLOCK MANAGEMENT HIERARCHY

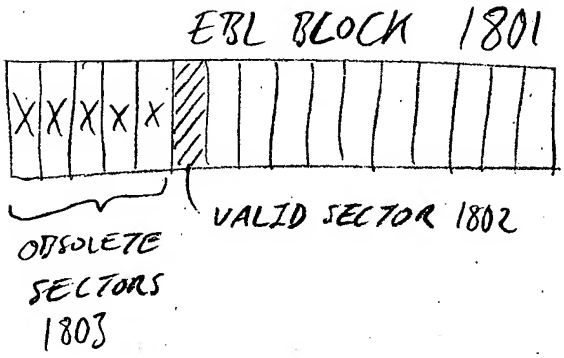
EBL BLOCK 1801
X
X
X
X
X
VALID SECTOR 1802
OBSOLETE SECTORS 1803

FIGURE 18B

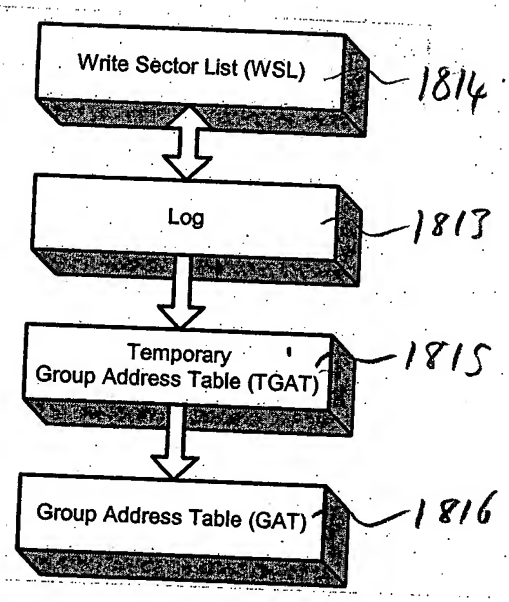

FIGURE 18C ADDRESS TABLE MANAGEMENT HIERARCHY

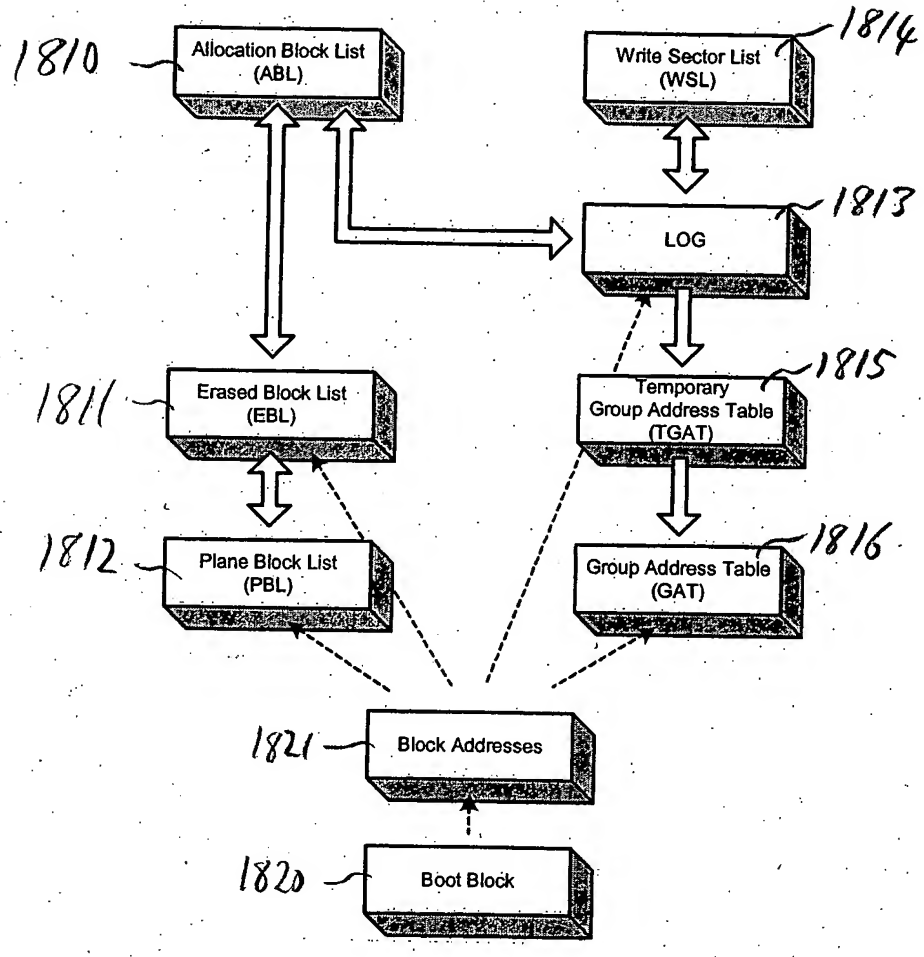

FIGURE 18D DATA STRUCTURE REFERENCE TREE